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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,854	10/24/2003	Rob Relyea	MS1-1780US	3939
22801	7590	07/09/2008	EXAMINER	
LEE & HAYES PLLC			WANG, BEN C	
421 W RIVERSIDE AVENUE SUITE 500				
SPOKANE, WA 99201			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/693,854	RELYEA ET AL.	
	Examiner	Art Unit	
	BEN C. WANG	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 30 April 2008.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,4-17 and 19-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,4-17 and 19-25 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/8/2008</u> . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 30, 2008 has been entered.

2. Applicant's amendment dated April 30, 2008, responding to the Office action mailed October 31, 2007 provided in the rejection of claims 1, 4-17, and 19-34, wherein claims 1, 4-7, 17, and 23 were amended, claims 2-3, 19, and 26-34 were canceled.

Claims 1, 4-17, and 19-25 remain pending in the application and which have been fully considered by the examiner.

Applicant's arguments with respect to claims currently amended have been fully considered but are moot in view of the new grounds of rejection – see Powers - art made of record, as applied hereto.

Claim Rejections – 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1, 4-17, and 19-22 are rejected under 35 U.S.C 101 because the claims are directed to non-statutory subject matter.

4. **As to claims 1 and 17,** the claims recite “... one or more computer readable media ...” to include communications media (signaling and carrier wave etc.) (e.g., see page 52, line 14 through page 53, line 8 in the specification); the claims are directed to a computer program product encoding a computer program. However, Applicant defines “computer-readable medium” to include “a computer data signal embodied in a carrier wave”. Signals do not fall within any class of statutory subject matter, and thus the claim is not limited to statutory subject matter. Please see Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility (1300 OG 142), Annex IV, Section (C) for details.

5. **As to claims 4-16,** they are also rejected as they do not overcome the deficiency in the base claim 1.

6. **As to claims 19-22,** they are also rejected as they do not overcome the deficiency in the base claim 17.

Claim Interpretation of Record for Claims 1, 4-17, and 19-22

7. In the interest of compact prosecution, the Examiner subsequently treats the above phrase “a machine accessible medium” as will be corrected to read as such “a

computer readable storage medium and NOT a transmission media (non-statutory)" for the purpose of further examination, in light of the specification (e.g., see page 52, line 14 through page 53, line 8 in the specification).

Claim Rejections – 35 USC § 103(a)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 4-17, and 19-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (Pub. No. US 2003/0028685 A1) (hereinafter ‘Smith’) in view of Priya Lakshminarayanan (*The .NET Schema Object Model, December 04, 2002, XML.com - O'Reilly Media, Inc.*) (hereinafter ‘Lakshminarayanan’) and further in view of Powers et al. (*Visual Basic® Programmer's Guide to the .NET Framework Class Library*) (hereinafter ‘Powers’ - art made of record)

9. **As to claim 1** (Currently Amended), Smith discloses a programming interface embodied on one or more computer readable media having computer-executable instructions for performing steps, comprising:

- generating graphical objects using a first group of services (i.e., P.11, *System.Drawing*; P. 12 – *System.Web.UI*);

- formatting content using a second group of services (i.e., P. 2, *System.Runtim.Serialization.Formatters*; P. 10, *Document Format Information*; P. 11, *System.Runtime.Serialization.Formatters*; [0049]; [0065], Lines 7-16; [0077]);
- creating components of the graphical objects using a third group of services (i.e., Fig. 3, element 202 – Client Application; [0048] – the client application namespace pertains to drawing and client side UI functionality; P. 13, Left-Col., Lines 50-52; P. 14, Left-Col., Lines 17-19, Right-Col., Lines 18-20; P. 15, Left-Col., Lines 20-22, Right-Col., Lines 37-39; P. 16, Left-Col. Lines 24-27, Right-Col., Lines 5-8, 34-36); and
- binding element to data sources, data source classes, and data specific implementation of data collections using a fourth group of services (e.g., Fig. 3, element 204 – Data and XML; [0057], Lines 9-13 - ... data binding functionality ...; [0063] – a data namespace (“*System.Data*”) contains classes that enable developers to build components that efficiently manager data from multiple data sources ... a collection of types used to access a data source ...)

Smith does not explicitly disclose the followings:

- using a common markup language to map classes and properties specified in the markup language to an instantiated tree of objects across the first group of services, the second group of services, the third group of services, and the fourth group of services; and

- integrating the first group of services, the second group of and the third group of services, and the fourth group of services using a consistent programming model and consistent services across the three service groups.

However, in an analogous art of *The .NET® Schema Object Model*, Lakshminarayanan discloses the followings:

- using a common markup language to map classes and properties specified in the markup language to an instantiated tree of objects across the first group of services, the second group of services, the third group of services, and the fourth group of services; and
- integrating the first group of services, the second group of and the third group of services, and the fourth group of services using a consistent programming model and consistent services across the three service groups (e.g., P. 1, 1st Par. – This article focuses on an API in the .NET® platform, the XML Schema Object Model (SOM), SOM is rich API which allows developers to create, edit, and validate schemas programmatically – one of the few such tools available so far; .2nd Par. – SOM operates on schema documents analogously to the way DOM operates on XML documents. Schema documents are valid XML files that, once loaded into the SOM, convey meaning about the structure and validity of other XML documents which conform to the schema. SOM is indispensable for a certain class of application, like a schema editor, where it needs to construct the schema in memory and check the schema's validity according to the WXS (W3C XML Schema) specifications; 4th Par. – This mapping helps easy use of the API. For a

complete listing of all the classes available in the System.Xml.Schema namespace, refer to [the .NET® Framework Class Library Reference](#))

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of Lakshminarayanan into the Smith's system to further provide the followings:

- using a common markup language to map classes and properties specified in the markup language to an instantiated tree of objects across the first group of services, the second group of services, the third group of services, and the fourth group of services; and
- integrating the first group of services, the second group of and the third group of services, and the fourth group of services using a consistent programming model and consistent services across the three service groups in Smith system.

The motivation is that it would further enhance the Smith's system by taking, advancing and/or incorporating Lakshminarayanan's system which offers significant advantages that on an API in the .NET® platform, the XML Schema Object Model (SOM), SOM is a rich API which allows developers to create, edit, and validate schema programmatically – one of the few such tools available so far as once suggested by Lakshminarayanan (e.g., P. 1, 1st Par.)

Furthermore, Smith discloses that an application program interface (API) provides a set of functions for application developers who build Web applications on Microsoft Corporation's .NET™ platform, but Smith and Lakshminarayanan do not explicitly discloses wherein the fourth group of services further handle exceptions in data entry.

However, in an analogous art of *Visual Basic® Programmer's Guide to the .NET Framework Class Library*, Powers discloses wherein the fourth group of services further handle exceptions in data entry (e.g., Chapter 15. Data Storage and Access, Table 15.1 – Key Classes Covered, 4th entry – *ConstraintException* and 7th entry – *DataException*)

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of Powers into the Smith-Lakshminarayanan's system to further provide the fourth group of services further handle exceptions in data entry in the Smith-Lakshminarayanan system.

The motivation is that it would further enhance the Smith-Lakshminarayanan's system by taking, advancing and/or incorporating the Powers' system which offers significant advantages for using data access exceptions within .NET Framework Class Library as once suggested by Powers (e.g., Chap. 15 – Data Storage and Access Key Classes Related to Data)

10. **As to claim 4**, (incorporating the rejection in claim 1) (Currently Amended), Smith discloses a programming interface wherein the first group of services, the second group of services, the third group of services, and fourth group of services share a common event system (e.g., [0045] – event handling; [0049], Lines 7-10; [0069]).

11. **As to claim 5**, (incorporating the rejection in claim 1) (Currently Amended), Smith discloses a programming interface wherein the first group of services, the second

group of services, the third group of services, and the fourth group of services share a common property definition system (e.g., [0049], Lines 7-10; [0075]; [0079], Lines 1-10).

12. **As to claim 6,** (incorporating the rejection in claim 1) (Currently Amended), Smith discloses a programming interface wherein the first group of services, the second group of services, the third group of services, and the fourth group of services share a common input paradigm (e.g., [0092], Lines 6-10; [0088], Lines 4-7; [0093], Lines 3-7).

13. **As to claim 7,** (incorporating the rejection in claim 1) (Currently Amended), Smith discloses a programming interface wherein the first group of services, the second group of services, the third group of services, and the fourth group of services share a common system for nesting elements associated with a particular group of services within elements associated with another group of services (e.g., Fig. 3; [0052] through [0059]).

14. **As to claim 8,** (incorporating the rejection in claim 1) (Original), Smith discloses a programming interface wherein the first group of services includes a service that determines an appearance of the graphical objects (e.g., [0030], Lines 4-8 – HTML defines how elements are displayed)

15. **As to claim 9,** (incorporating the rejection in claim 1) (Original), Smith discloses a programming interface wherein the first group of services includes a service that

determines a behavior of the graphical objects (e.g., [0030], Lines 4-8 – XML is used for defining data element on a Web page)

16. **As to claim 10,** (incorporating the rejection in claim 1) (Original), Smith discloses a programming interface wherein the first group of services includes a service that determines an arrangement of the graphical objects (e.g., [0030], Lines 4-8 – HTML defines how elements are displayed)

17. **As to claim 11,** (incorporating the rejection in claim 1) (Original), Smith discloses a programming interface wherein the first group of services includes a plurality of nested elements that define the graphical objects (e.g., Fig. 3, element 312 – UI; [0057])

18. **As to claim 12,** (incorporating the rejection in claim 1) (Original), Smith discloses a programming interface wherein the objects are comprised of one or more elements defined by vector graphical graphics (e.g., [0062] – vector graphics functionality)

19. **As to claim 13** (incorporating the rejection in claim 1) (Original), Smith discloses a programming interface and an application program interface wherein the first group of services can define window properties in a markup language without launching a new window (e.g., [0061] – A windows forms namespace (“*System.Windows.Forms*”) containing classes for creating Windows®-based client applications)

20. **As to claim 14,** (incorporating the rejection in claim 1) (Original), Smith discloses a programming interface wherein the first group of services generates a user interface containing a plurality of graphical objects (i.e., Fig. 3, element 202 – Client Application; [0048] – the client application namespace pertains to drawing and client side UI functionality; P. 13, Left-Col., Lines 50-52; P. 14, Left-Col., Lines 17-19, Right-Col., Lines 18-20; P. 15, Left-Col., Lines 20-22, Right-Col., Lines 37-39; P. 16, Left-Col. Lines 24-27, Right-Col., Lines 5-8, 34-36)

21. **As to claim 15,** (incorporating the rejection in claim 1) (Original), Smith discloses a programming interface wherein the second group of services arranges the graphical objects (e.g., [0030], Lines 4-8 – HTML defines how elements are displayed)

22. **As to claim 16,** (incorporating the rejection in claim 1) (Original), Smith discloses a software architecture comprising the programming interface (e.g., Fig. 2; [0022]; [0044], Lines 1-30)

23. **As to claim 17** (Currently Amended), Smith discloses an application program interface embodied on one or more computer readable media having computer-executable instructions for performing steps, comprising:

- generating graphical objects using a first group of services (i.e., P.11, *System.Drawing*; P. 12 – *System.Web.UI*);

- formatting content using a second group of services (i.e., P. 2, *System.Runtim.Serialization.Formatters*; P. 10, *Document Format Information*; P. 11, *System.Runtime.Serialization.Formatters*; [0049]; [0065], Lines 7-16; [0077]);
- creating components of the graphical objects using a third group of services (i.e., Fig. 3, element 202 – Client Application; [0048] – the client application namespace pertains to drawing and client side UI functionality; P. 13, Left-Col., Lines 50-52; P. 14, Left-Col., Lines 17-19, Right-Col., Lines 18-20; P. 15, Left-Col., Lines 20-22, Right-Col., Lines 37-39; P. 16, Left-Col. Lines 24-27, Right-Col., Lines 5-8, 34-36), wherein the first group of services, the second group of services, the third group of services, and the fourth group of services are integrated via: sharing a common programming model (e.g., Fig. 3; [0023]; [0052], Lines 1-6);
- binding elements to data sources, data source classes, and data specific implementations of data collections using a fourth group of services (e.g., Fig. 3, element 204 – Data and XML; [0057], Lines 9-13 - ... data binding functionality ...; [0063] – a data namespace (“*System.Data*”) contains classes that enable developers to build components that efficiently manager data from multiple data sources ... a collection of types used to access a data source ...);

Smith does not explicitly disclose using a common markup language across the three services to map classes and properties specified in the markup language to an instantiated tree of objects.

However, in an analogous art of *The .NET® Schema Object Model*, Lakshminarayanan discloses using a common markup language across the three services to map classes and properties specified in the markup language to an instantiated tree of objects (e.g., P. 1, 1st Par. – This article focuses on an API in the .NET® platform, the XML Schema Object Model (SOM), SOM is rich API which allows developers to create, edit, and validate schemas programmatically – one of the few such tools available so far; .2nd Par. – SOM operates on schema documents analogously to the way DOM operates on XML documents. Schema documents are valid XML files that, once loaded into the SOM, convey meaning about the structure and validity of other XML documents which conform to the schema. SOM is indispensable for a certain class of application, like a schema editor, where it needs to construct the schema in memory and check the schema's validity according to the WXS (W3C XML Schema) specifications; 4th Par. – This mapping helps easy use of the API. For a complete listing of all the classes available in the System.Xml.Schema namespace, refer to the .NET® Framework Class Library Reference)

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of Lakshminarayanan into the Smith's system to further provide using a common markup language across the three services to map classes and properties specified in the markup language to an instantiated tree of objects in Smith system.

The motivation is that it would further enhance the Smith's system by taking, advancing and/or incorporating Lakshminarayanan's system which offers significant

advantages that on an API in the .NET® platform, the XML Schema Object Model (SOM), SOM is a rich API which allows developers to create, edit, and validate schema programmatically – one of the few such tools available so far as once suggested by Lakshminarayanan (e.g., P. 1, 1st Par.)

Furthermore, Smith discloses that an application program interface (API) provides a set of functions for application developers who build Web applications on Microsoft Corporation's .NET™ platform, but Smith and Lakshminarayanan do not explicitly disclose wherein the fourth group of services further handle exceptions in data entry.

However, in an analogous art of *Visual Basic® Programmer's Guide to the .NET Framework Class Library*, Powers discloses wherein the fourth group of services further handle exceptions in data entry (e.g., Chapter 15. Data Storage and Access, Table 15.1 – Key Classes Covered, 4th entry – *ConstraintException* and 7th entry – *DataException*)

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of Powers into the Smith-Lakshminarayanan's system to further provide the fourth group of services further handle exceptions in data entry in the Smith-Lakshminarayanan system.

The motivation is that it would further enhance the Smith-Lakshminarayanan's system by taking, advancing and/or incorporating the Powers' system which offers significant advantages for using data access exceptions within .NET Framework Class Library as once suggested by Powers (e.g., Chap. 15 – Data Storage and Access Key Classes Related to Data)

24. **As to claim 19,** (incorporating the rejection in claim 17) (Original), Smith discloses an application program interface wherein the third group of services includes services to generate geometric shapes (e.g., [0048] – the client applications namespace pertains to drawing and client side UI functionality. It supplies types that enable drawing of two-dimensional, imaging, and printing, as well as the ability to construct window forms, menus, boxes, and so on)

25. **As to claim 20,** (incorporating the rejection in claim 17) (Original), Smith discloses an application program interface wherein the second group of services includes arranging a plurality of data elements (e.g., [0030], Lines 4-8 – XML is used for defining data element on a Web page)

26. **As to claim 21,** (incorporating the rejection in claim 17) (Original), Smith discloses an application program interface wherein the first group of services includes: a service that determines an appearance of a graphical object (e.g., [0030], Lines 4-8 – HTML defines how elements are displayed); and a service that determines a behavior of the graphical object (e.g., [0030], Lines 4-8 – XML is used for defining data element on a Web page)

27. **As to claim 22,** (incorporating the rejection in claim 17) (Original), please refer to claim 13 as set forth above accordingly.

28. **As to claim 23,** Smith discloses a computer system including one or more microprocessors (Fig. 4, element 404 – Processing Unit; [0085], Lines 3-5) and one more software programs (Fig. 4, elements 428 - Application Programs, 430 – Program Modules, 432 – Program Data; [0091], Lines 4-5), the one or more software programs utilizing a interface (Fig. 2, element 142 – Application Program Interface; [0039], Lines 1-4) to request services from an operating system (Fig. 2, element 146(1) – Operating System), the services or programming interface including separate commands to request consisting of the following groups of services:

- a first group of services for generating graphical objects (i.e., P.11, *System.Drawing*; P. 12 – *System.Web.UI*);
- a second group of services for creating components of the graphical objects (i.e., Fig. 3, element 202 – Client Application; [0048] – the client application namespace pertains to drawing and client side UI functionality; P. 13, Left-Col., Lines 50-52; P. 14, Left-Col., Lines 17-19, Right-Col., Lines 18-20; P. 15, Left-Col., Lines 20-22, Right-Col., Lines 37-39; P. 16, Left-Col. Lines 24-27, Right-Col., Lines 5-8, 34-36); and
- a third group of services that bind elements to data sources, data source classes, and data specific implementations of data collections (e.g., Fig. 3, element 204 – Data and XML; [0057], Lines 9-13 - ... data binding functionality ...; [0063] – a data namespace (“*System.Data*”) contains classes that enable developers to build components that efficiently manager data from multiple data sources ... a collection of types used to access a data source ...);

- wherein the first group of services, the second group of services, and the third group of services are integrated by sharing a common programming model (e.g., Fig. 3; [0023]; [0052], Lines 1-6)

Smith does not explicitly disclose consistent services and using a common markup language to map classes and properties specified in the markup language to an instantiated tree of objects across the first, second, and third group of services.

However, in an analogous art of *The .NET® Schema Object Model*, Lakshminarayanan discloses consistent services and using a common markup language to map classes and properties specified in the markup language to an instantiated tree of objects across the first, second, and third group of services (e.g., P. 1, 1st Par. – This article focuses on an API in the .NET® platform, the XML Schema Object Model (SOM), SOM is rich API which allows developers to create, edit, and validate schemas programmatically – one of the few such tools available so far; 2nd Par. – SOM operates on schema documents analogously to the way DOM operates on XML documents. Schema documents are valid XML files that, once loaded into the SOM, convey meaning about the structure and validity of other XML documents which conform to the schema. SOM is indispensable for a certain class of application, like a schema editor, where it needs to construct the schema in memory and check the schema's validity according to the WXS (W3C XML Schema) specifications; 4th Par. – This mapping helps easy use of the API. For a complete listing of all the classes available in the System.Xml.Schema namespace, refer to the .NET® Framework Class Library Reference)

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of Lakshminarayanan into the Smith's system to further provide consistent services and using a common markup language to map classes and properties specified in the markup language to an instantiated tree of objects across the first, second, and third group of services in Smith system.

The motivation is that it would further enhance the Smith's system by taking, advancing and/or incorporating Lakshminarayanan's system which offers significant advantages that on an API in the .NET® platform, the XML Schema Object Model (SOM), SOM is a rich API which allows developers to create, edit, and validate schema programmatically – one of the few such tools available so far as once suggested by Lakshminarayanan (e.g., P. 1, 1st Par.)

Furthermore, Smith discloses that an application program interface (API) provides a set of functions for application developers who build Web applications on Microsoft Corporation's .NET™ platform, but Smith and Lakshminarayanan do not explicitly disclose wherein the fourth group of services further handle exceptions in data entry.

However, in an analogous art of *Visual Basic® Programmer's Guide to the .NET Framework Class Library*, Powers discloses wherein the fourth group of services further handle exceptions in data entry (e.g., Chapter 15. Data Storage and Access, Table 15.1 – Key Classes Covered, 4th entry – *ConstraintException* and 7th entry – *DataException*)

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teachings of Powers into the Smith-

Lakshminarayanan's system to further provide the fourth group of services further handle exceptions in data entry in the Smith-Lakshminarayanan system.

The motivation is that it would further enhance the Smith-Lakshminarayanan's system by taking, advancing and/or incorporating the Powers' system which offers significant advantages for using data access exceptions within .NET Framework Class Library as once suggested by Powers (e.g., Chap. 15 – Data Storage and Access Key Classes Related to Data)

29. **As to claim 24,** (incorporating the rejection in claim 23) (Original), Smith discloses a computer system wherein the first group of services includes: a service for defining an appearance of the graphical objects (e.g., [0030], Lines 4-8 – HTML defines how elements are displayed); and a service for defining an arrangement of the graphical objects (i.e., Fig. 3, element 202 – Client Application; [0048] – the client application namespace pertains to drawing and client side UI functionality; P. 13, Left-Col., Lines 50-52; P. 14, Left-Col., Lines 17-19, Right-Col., Lines 18-20; P. 15, Left-Col., Lines 20-22, Right-Col., Lines 37-39; P. 16, Left-Col. Lines 24-27, Right-Col., Lines 5-8, 34-36)

30. **As to claim 25,** (incorporating the rejection in claim 23) (Original), Smith discloses a computer system wherein the second group of services includes services to generate a plurality of geometric shapes (e.g., [0048] – the client applications namespace pertains to drawing and client side UI functionality. It supplies types that

enable drawing of two-dimensional, imaging, and printing, as well as the ability to construct window forms, menus, boxes, and so on)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ben C. Wang whose telephone number is 571-270-1240. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on 571-272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ben C Wang/
Examiner, Art Unit 2192
June 26, 2008

/Tuan Q. Dam/
Supervisory Patent Examiner, Art Unit 2192